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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,325	12/08/2006	Clemens Ottermann	2133.122USU	2196

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EXAMINER

GRAMLING, SEAN P

ART UNIT	PAPER NUMBER
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2875

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,325	Applicant(s) OTTERMANN ET AL.	
	Examiner SEAN P. GRAMLING	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-61 and 65-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-61 and 65-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment

1. Acknowledgment is made of Amendment filed March 17, 2008. Claims 1-32 and 62-64 are canceled. Claims 33-61 and 65-67 are amended. Claims 33-61 and 65-67 are pending.

Claim Objections

2. **Claims 33 and 67** are objected to because of the following informalities:
3. Regarding claim 33, in line 10, Applicant recites "the layers of the OLED". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.
4. Similarly in claim 67, line 8, Applicant recites "the layers of the OLED". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. **Claims 33, 35-42, 45-48, 58-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Budd et al* (US 2001/0030320) and further in view of *Ohizumi et al* (US 6,802,619).

7. Regarding claim 33, Budd discloses a luminous element with a light-guiding device in which light is guided by reflection, wherein the light-guiding device comprises at least one light-scattering area (upper surface of light guiding plate 32) to which light-scattering structures can be applied, and at least one light entry surface (side surface), and at least one OLED 10 coupled to the light entry surface, characterized in that the OLED comprises a transparent substrate 14 which is coupled to a light entry surface of the light-guiding device, the light-guiding device comprising a light guiding plate 32 and the glass substrate 14 being plate-shapes and being coupled with the aid of an edge surface to the light-guiding device (see Figures 1a, 1b, and 2, and paragraphs [0025], [0026], and [0041]). The OLED 10 in Budd is not directly deposited on the light entry surface of the light-guiding device. However, the placement of OLEDs directly on the light entry surface of light guides is well-known in the art and is specifically disclosed in Ohizumi (see Ohizumi, Figure 11 and column 1, lines 45-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the OLED 10 directly on the light entry surface of the light-guide 32 in Budd as taught by Ohizumi in order to maximize light efficiency, and since it has been held that to shift location of prior art parts does not make the claimed invention patentable over that prior art (*In re Japikse*, 86 USPQ 70).

8. Regarding claim 35, the light-guiding device in Budd comprises transparent material 14 (see paragraph [0025] and Figures 1a and 2).
9. Regarding claim 36, the transparent material 14 in Budd is comprised of glass (see paragraph [0025]).
10. Regarding claim 37, the light entry surface in Budd is arranged at an edge surface of the light guiding plate 32 (see Figure 2).
11. Regarding claim 38, the light entry surface in Budd adjoins an edge surface of the plate 32 (see Figure 2).
12. Regarding claim 39, the light guiding device in Budd has an elongated shape (see Figure 2).
13. Regarding claim 40, the light entry surface in Budd comprises at least one end face (see Figure 2).
14. Regarding claim 41, the light entry surface in Budd comprises at least one face at one of the ends of the light-guiding plate (see Figure 2).
15. Regarding claim 42, the light entry surface in Budd is arranged on at least one side of the light guiding plate (see Figure 2).
16. Regarding claim 45, the light entry area in Budd comprises the light entry surface (see Figure 2).
17. Regarding claim 46, the light entry area in Budd comprises the OLED 10 (see Figure 2).
18. Regarding claim 47, the OLED in Budd is of strip-shaped form (see Figures 1a and 3).

19. Regarding claim 48, the OLED in Budd has contact surfaces which extend along the longitudinal direction of the OLED (see Figures 1a and 3).

20. Regarding claim 58, the luminous element in Budd is characterized by a number of OLEDs 10 coupled to light entry surfaces (see Figure 3).

21. Regarding claim 59, the luminous element in Budd is characterized in that the several OLEDs 10 emit light of different colors (see Figure 3).

22. Regarding claim 60, Budd discloses an OLED that emits white light (see paragraph [0006]).

23. Regarding claim 61, the light-scattering area in Budd has a light exit surface (upper surface of light guiding device 32) which is larger than the light entry surface of the light guiding device 32 (see Figure 2).

24. **Claims 50-51 and 65-66** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Budd* and *Ohizuma* as applied to claim 33 above.

25. Regarding claims 50 and 51, the light entry surface of the light-guiding device 32 in Budd is straight and arranged perpendicular to the light guidance direction of the OLED's 10, rather than curved and arranged obliquely to the light guidance direction. However, lacking any criticality, changing the form or shape of prior art parts does not make the claimed invention patentable over that prior art (*In re Dailey*, 149 USPQ 471).

26. Regarding claims 65 and 66, the light guiding device 32 in Budd is illustrated as a light guide plate and does have an annularly bent shape or a cylindrical, semicylindrical, tubular, conical or prismatic shape. However, lacking any criticality, changing the form

or shape of prior art parts does not make the claimed invention patentable over that prior art (In re Dailey, 149 USPQ 471).

27. **Claims 34, 52-57 and 67** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Budd* and *Ohizuma* as applied to claim 33 above, and further in view of *Ohe* (US 5,550,676).

28. Regarding claims 34, 52-54 and 56-57, *Budd* does not specifically disclose that the light-scattering area (the upper surface of the light-guiding device 32) have a raised pyramid light-scattering structure (optical grating) with a roughened surface wherein the roughness increases along the light guidance direction. However, such light-guiding devices with these type of light-scattering structures are well-known in the art and are taught in *Ohe* (see *Ohe*, Figures 1b, 3, 5a-5e, and 6b). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a pyramid light-scattering structure with progressively roughened surfaces along the upper surface of the light-guiding device 32 in *Budd* as taught by *Ohe* in order to make the luminance of the light through the light emitting surface of the lighting device 32 uniform over the entire surface thereof (see *Ohe*, column 5, lines 43-46).

29. Regarding claim 67, *Budd* discloses a luminous element with a light-guiding device in which light is guided by reflection, wherein the light-guiding device comprises at least one light-scattering area (upper surface of light guiding plate 32), and at least one light entry surface (side surface), and at least one OLED 10 coupled to the light entry surface, characterized in that the light-guiding device has a light exit surface (upper surface of light guiding plate) which comprises at least one edge surface of a

light guiding plate, and the light entry surface (side surface of 32) is arranged on at least one side of the light guiding plate 32 (see Figures 1a, 1b, and 2, and paragraphs [0025], [0026], and [0041]). Budd does not specifically disclose that the light-scattering area (the upper surface of the light-guiding device 32) have a light-scattering structure.

However, such light-guiding devices with these type of light-scattering structures are well-known in the art and are taught in Ohe (see Ohe, Figures 1b, 3, 5a-5e, and 6b). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a light-scattering structure along the upper surface of the light-guiding device 32 in Budd as taught by Ohe in order to make the luminance of the light through the light emitting surface of the lighting device 32 uniform over the entire surface thereof (see Ohe, column 5, lines 43-46). Also the OLED 10 in Budd is not directly deposited on the light entry surface of the light-guiding device. However, the placement of OLEDs directly on the light entry surface of light guides is well-known in the art and is specifically disclosed in Ohizumi (see Ohizumi, Figure 11 and column 1, lines 45-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the OLED 10 directly on the light entry surface of the light-guide 32 in Budd as taught by Ohizumi in order to maximize light efficiency, and since it has been held that to shift location of prior art parts does not make the claimed invention patentable over that prior art (*In re Japikse*, 86 USPQ 70).

30. **Claims 43 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Budd* and *Ohizumi* as applied to claim 33 above, and further in view of *Weaver et al* (US 2003/0127973).

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31. Regarding claims 43 and 44, Budd does not specifically teach that the glass substrate 14 be flexible polymer. However, flexible polymer substrates in OLED's are well-known in the art and are taught in Weaver (see paragraph [0009]). It would have been obvious to one of ordinary skill in the use flexible polymer substrates in the OLED's 10 in Budd as taught by Weaver in order to allow for substrate to properly conform to the OLED assembly and the light guide plate.

32. **Claim 49** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Budd* and *Ohizumi* as applied to claim 33 above, and further in view of *Duggal* (US 6,777,871).

33. Regarding claim 49, Budd does specifically teach that the substrates 14 of the OLED's 10 be coupled up against the light entry surface of the light guiding device 32 with a coupling element such as a transparent bonded joint of the same refractive power as the light-guiding device. However, the use of transparent adhesive of similar index of refractions to secure OLED's substrates to devices is well-known in the art of OLED's and is taught in Duggal (see column 6, lines 31-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to couple the OLED's to the entry surface of the light guiding device 32 with a transparent adhesive having a similar index of refraction as the device 32 so as to secure the OLED's to the device without altering the direction and path of the entering light.

Response to Arguments

34. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

35. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN P. GRAMLING whose telephone number is (571)272-9082. The examiner can normally be reached on MONDAY-FRIDAY 7:30 AM-5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sean P Gramling
Examiner
Art Unit 2875

/SPG/

/Sandra L. O'Shea/
Supervisory Patent Examiner, Art Unit 2875